

APPLICATION NO. 09/826,676  
DOCKET NO. P1026/N8369**COMPLETE LISTING OF CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (currently amended) An isolated thermal interface comprising a ~~flexible graphite sheet~~ of compressed particle of exfoliated graphite including particles of natural graphite, the sheet having two major surfaces, ~~at least one of the major surfaces~~ being coated with a protective coating sufficient to inhibit flaking of the particles of graphite.

Claim 2 (original) The thermal interface of claim 1 wherein the protective coating comprises a thermoplastic material.

Claim 3 (previously presented) The thermal interface of claim 2 wherein the thermoplastic comprises polyethylene, a polyester or a polyimide.

Claim 4 (currently amended) The thermal interface of claim ~~3~~ 1 wherein the protective coating is no more than about 0.025 millimeters in thickness.

Claim 5 (currently amended) The thermal interface of ~~claim 4~~ claim 1 wherein the protective coating is effective to electrically isolate the coated major surface of the sheet of ~~flexible graphite particles~~.

Claim 6 (currently amended) The thermal interface of claim 1 wherein the ~~flexible graphite sheet~~ has edge surfaces, and at least one edge surface of the ~~flexible graphite sheet~~ is coated with a protective coating sufficient to inhibit flaking of the particles of graphite.

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Claim 7 (currently amended) The thermal interface of claim 1 which further comprises a layer of adhesive interposed between the protective coating and the ~~flexible-graphite~~ sheet.

Claim 8 (original) The thermal interface of claim 7 wherein the adhesive is selected from the group consisting of acrylic and latex materials.

Claim 9 (original) The thermal interface of claim 7 wherein the layer of adhesive is no more than about 0.015 millimeters in thickness.

Claim 10 (currently amended) A process for producing a thermal interface having protective coating sufficient to inhibit flaking of the particles of graphite, the process comprising (a) forming a ~~flexible-graphite sheet, said sheet comprising compressed particles of exfoliated graphite expanded natural-graphite particle~~, into the size and shape desired for a thermal interface, wherein the formed ~~flexible-graphite~~ sheet has ~~at least one~~ two major surface surfaces and at least one edge surface, and wherein the sheet has its directions of greater thermal conductivity parallel to the major surface; and (b) coating the major surfaces of the formed ~~flexible-graphite~~ sheet with a material to form a protective coating, such that the material forms a protective boundary about the ~~flexible-graphite~~ sheet.

Claim 11 (currently amended) The process of claim 10 wherein the material is coated on the formed ~~flexible-graphite~~ sheet so as to flow completely about ~~at least one of the major surfaces and~~ at least one of the edge surfaces of the sheet, and extend beyond at least one of the edge surfaces of the sheet.

Claim 12 (currently amended) The process of claim ~~11~~ 10 wherein the material is coated on the formed ~~flexible-graphite~~ sheet by spray coating, roller coating or hot laminating press.

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Claim 13 (canceled)

Claim 14 (currently amended) The process of claim ~~13~~ 10 wherein the material is coated on the formed ~~flexible-graphite~~ sheet by roller coating, laminating with adhesive, or hot press laminating, and then cutting the formed ~~flexible-graphite~~ sheet into the desired size and shape of the thermal interface.

Claim 15 (original) The process of claim 10 wherein the material comprises a thermoplastic material.

Claim 16 (original) The process of claim 15 wherein the material comprises polyethylene, a polyester or a polyimide.

Claim 17 (currently amended) The process of claim ~~16~~ 10 wherein the material is no more than about 0.025 millimeters in thickness.

Claim 18 (currently amended) The process of claim 10 wherein an adhesive is coated on the formed ~~flexible-graphite~~ sheet between the material and the formed ~~flexible-graphite~~ sheet.

Claim 19 (original) The process of claim 18 wherein the adhesive comprises an acrylic or a latex material.

Claim 20 (original) The process of claim 19 wherein the layer of adhesive is no more than about 0.015 millimeters in thickness.

Claims 21-23 (canceled)

Claim 24 (new) An electronic device comprising

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- (a) an electronic component; and
- (b) a thermal interface comprising a sheet of compressed particles of exfoliated graphite having two major surfaces, one of the major surfaces being in contact with the electronic component and the other of the major surfaces coated with a protective coating sufficient to inhibit flaking of the particles of graphite.

Claim 25 (new) The device of claim 24 wherein the protective coating comprises a thermoplastic material.

Claim 26 (new) The device of claim 25 wherein the thermoplastic comprises polyethylene, a polyester or a polyimide.

Claim 27 (new) The device of claim 24 wherein the protective coating is no more than about 0.025 millimeters in thickness.

Claim 28 (new) The device of claim 24 wherein the protective coating is effective to electrically isolate the coated major surface of the sheet of flexible graphite particles.

Claim 29 (new) The device of claim 24 wherein the graphite sheet has edge surfaces, and at least one edge surface of the sheet of compressed particles of exfoliated graphite is coated with a protective coating sufficient to inhibit flaking of particles of graphite.